

**PRODUCTION OF ETHYLENE POLYMER**

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**Abstract of JP8109215**

**PURPOSE:** To produce an ethylene polymer having a broadened molecular weight distribution by using a catalyst system comprising a solid component, prepared by allowing an inorganic oxide to support a reaction product of an imidazole compound or an imidazoline compound with CrO<sub>3</sub>, and an organoaluminum compound.

**CONSTITUTION:** CrO<sub>3</sub> is slurried in a solvent (e.g. dichloromethane) and mixed with an imidazole compound or an imidazoline compound dissolved in a solvent in such an amount as to give a molar ratio to the CrO<sub>3</sub> of 1/1-3/1, and the mixture is agitated at -78 to 40 deg.C for about 10min to 5hr. After the reaction, a solid inorganic oxide (e.g. fired silica) is added thereto in such an amount that the amount of the Cr supported is about 0.1-5wt.%, and the solvent is removed from the mixture to obtain a solid component. The solid component is mixed with a toluene solution of an organoaluminum compound (e.g. trialkylaluminum) in such an amount as to give an Al/Cr molar ratio of about 0.1-200. The resulting mixture is agitated at about 0-40 deg.C for a specified time, and the solvent is removed from the mixture to obtain a solid catalyst. By way of example, ethylene is polymerized at about 0-300 deg.C in the presence of this catalyst to obtain an ethylene polymer of a broadened molecular weight distribution.

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